

U1-33HN 12Volt 33Ah

Specifications

Nominal Voltage(V) **12V**

Nominal Capacity

| | | |
|--------------|--------------------|----------------|
| 20 hour rate | (1.65A to 10.50V) | 33Ah |
| 10 hour rate | (3.135A to 10.50V) | 31.35Ah |
| 5 hour rate | (5.61A to 10.20V) | 28.05Ah |
| 1 C | (33A to 9.60V) | 18.7Ah |
| 3 C | (99A to 9.60V) | 13.2Ah |

Weight **Approx. 9.9kg(21.8Lbs.)**

Internal Resistance (at 1KHz) **Approx. 10 mΩ**

Maximum Discharge Current for

5 seconds: **495A**

Charging Methods at 25 (77)

Cycle use:

Charging Voltage **14.4 to 15.0V**

Coefficient -5.0mV/ /cell

Maximum Charging Current : **9.9A**

Standby use:

Float Charging Voltage **13.5 to 13.8V**

Coefficient -3.0mV/ /cell

Operating Temperature Range

Charge **-15 (5) to 40 (104)**

Discharge **-15 (5) to 50 (122)**

Storage **-15 (5) to 40 (104)**

Charge Retention (shelf life) at 20 (68)

1 month **92%**

3 month **90%**

6 month **80%**

Case Material **ABS UL94 HB**

Option: Flammability resistance of (UL94 V-0)

Terminal **F6**

Description of torque value of hard ware for the terminals:

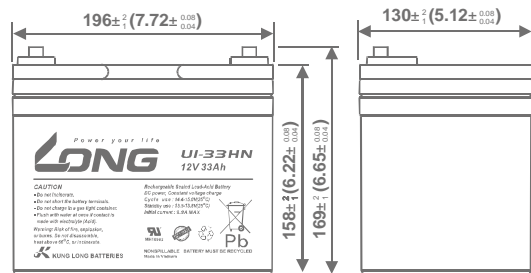
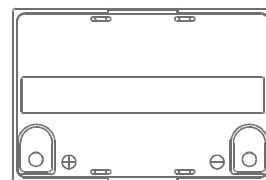
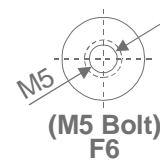
Recommended torque value **M5: 5 N-m (51kgf-cm)**

Maximum allowable torque value **M5: 6 N-m (61kgf-cm)**

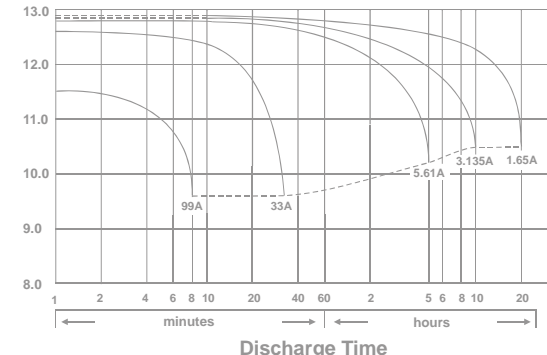


Dimensions

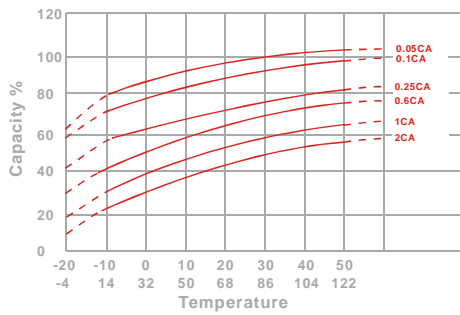
mm(inch)



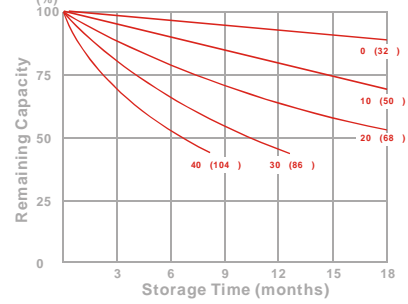
Discharge Time VS. Discharge Current (25)



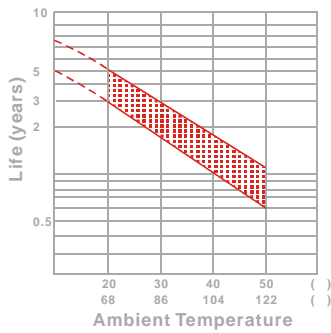
Effect of Temperature on Capacity 25 (77)



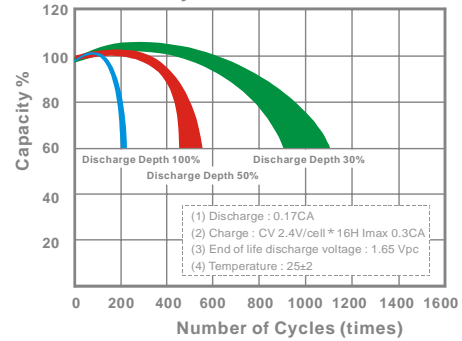
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25 (77)

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 163 | 192 | 211 | 223 | 227 | 232 | 236 |
| 10 | min | 111 | 130 | 143 | 151 | 154 | 156 | 159 |
| 15 | min | 85.8 | 99.3 | 108 | 114 | 115 | 117 | 119 |
| 30 | min | 48.2 | 55.5 | 60.3 | 63.0 | 63.8 | 64.8 | 66.0 |
| 60 | min | 30.3 | 33.2 | 35.0 | 36.8 | 37.5 | 38.2 | 39.0 |
| 120 | min | 19.0 | 20.5 | 21.5 | 22.3 | 22.7 | 23.0 | 23.5 |
| 180 | min | 13.6 | 14.7 | 15.5 | 16.1 | 16.4 | 16.7 | 17.0 |
| 240 | min | 11.0 | 11.7 | 12.3 | 12.8 | 13.0 | 13.2 | 13.4 |
| 300 | min | 9.57 | 10.3 | 10.9 | 11.3 | 11.4 | 11.5 | 11.7 |
| 600 | min | 5.52 | 5.97 | 6.35 | 6.57 | 6.63 | 6.70 | 6.80 |
| 1200 | min | 2.90 | 3.13 | 3.33 | 3.45 | 3.50 | 3.55 | 3.60 |

- Discharge Rates in Amperes to Various End Voltages at 25 (77)

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 86.7 | 106 | 120 | 129 | 132 | 136 | 140 |
| 10 | min | 58.5 | 68.4 | 74.5 | 79.8 | 81.7 | 84.2 | 87.3 |
| 15 | min | 41.1 | 49.3 | 54.2 | 58.4 | 59.6 | 61.5 | 63.0 |
| 30 | min | 27.4 | 31.3 | 32.9 | 34.2 | 34.6 | 35.1 | 35.6 |
| 60 | min | 16.4 | 17.7 | 18.6 | 19.3 | 19.5 | 19.8 | 20.1 |
| 120 | min | 9.67 | 10.3 | 10.8 | 11.2 | 11.3 | 11.5 | 11.7 |
| 180 | min | 6.86 | 7.36 | 7.82 | 8.08 | 8.15 | 8.23 | 8.36 |
| 240 | min | 5.45 | 5.89 | 6.27 | 6.46 | 6.51 | 6.58 | 6.69 |
| 300 | min | 4.74 | 5.11 | 5.43 | 5.61 | 5.65 | 5.70 | 5.78 |
| 600 | min | 2.73 | 2.95 | 3.15 | 3.24 | 3.27 | 3.30 | 3.34 |
| 1200 | min | 1.48 | 1.59 | 1.66 | 1.71 | 1.72 | 1.74 | 1.76 |

All data on the spec. sheet is an average value:

The tolerance range : X<6min(+15%~-15%), 6min X<10min(+12%~-12%),10min X < 60min(+8%~-8%), X 60min(+5%~-5%)